

AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Currently Amended) A seabed seismic cable, comprising:
a sensor module; at least one first lead to or from the sensor module;
a geophone housed in the sensor module;
a stress member extending continuously through the sensor module;
a first sheath enclosing the first lead and the stress member, the first sheath terminating at
each end of the sensor module; and
at least one mechanical guide in the sensor module deflecting the stress member.
2. (Currently Amended) The seismic cable of claim 1, wherein the sensor module further
houses at least one of ~~a geophone~~, an accelerometer, a hydrophone, a tilt meter, and a
magnetometer.
3. (Original) The seismic cable of claim 2, wherein the sensor module houses electronics for
converting analogue signals to digital signals.
4. (Original) The seismic cable of claim 1, further comprising a second lead extending
continuously through the sensor module.
5. (Original) The seismic cable of claim 4 wherein the second lead is attached to the stress
member.
6. (Original) The seismic cable of claim 5, further comprising a second sheath enclosing the
at least one second lead and the stress member.

7. (Original) The seismic cable of claim 4 wherein the at least mechanical guide deflects the second lead.
8. (Original) The seismic cable of claim 4, wherein the second lead is an optical lead or an electrical lead.
9. (Original) The seismic cable of claim 1, further comprising a plurality of leads bundled into at least one bundle.
10. (Original) The seismic cable of claim 9, wherein the bundled leads are enclosed by a protective covering.
11. (Original) The seismic cable of claim 9, wherein the leads include at least one of an optical lead and an electrical lead.
12. (Original) The seismic cable of claim 9, wherein the at least one bundle is cylindrical, oval or flat in cross-section.
13. (Original) The seismic cable of claim 1, wherein the stress member comprises at least one of an aramide rope, a steel rope, and a utility cable.
14. (Original) The seismic cable of claim 1, further comprising a pair of rings disposed between the first sheath and the first lead and stress member against which the first sheath may be clamped to terminate the sheath.
15. (Original) The seismic cable of claim 14, wherein the sensor module clamps the first sheath against the rings.

16. (Original) The seismic cable of claim 1, wherein the first sheath comprises at least one of a skin, a jacket, or an extrusion matrix.
17. (Original) The seismic cable of claim 1, wherein the mechanical guides deflect the first lead.
18. (Currently Amended) A seabed seismic cable, comprising:
a sensor module;
a geophone housed in the sensor module;
at least one lead deployed in an SZ winding, wherein the lead extends to or from the sensor module;
a stress member extending continuously through the sensor module; and
a sheath enclosing the leads and the stress member, the sheath terminating at each end of the sensor module.
19. (Original) The seismic cable of claim 18, wherein the direction of the SZ winding changes in the sensor module.
20. (Currently Amended) A method of producing a seabed seismic sensor cable, comprising:
providing a cable core including a stress member and a lead;
enclosing the cable core in a sheath;
providing an opening in the sheath; and
assembling a sensor module housing a geophone to the cable core over the opening such that the stress member extends continuously through the sensor module.
21. (Original) The method of claim 20, wherein providing the cable core includes layering metallic tape under the sheath on the cable core at a location corresponding to the opening.

22. (Original) The method of claim 21, wherein enclosing the cable core includes extruding the sheath over the length of the cable core.
23. (Original) The method of claim 22, wherein providing the opening includes providing an anti-bonding solution.
24. (Original) The method of claim 23, wherein providing the anti-bonding solution comprises stripping the extruded sheath from the cable core over the metallic tape or other type of anti-bonding solution.
25. (Original) The method of claim 20, wherein providing the cable core includes impregnating the cable core with an anti-bonding agent at a location corresponding to the opening.
26. (Original) The method of claim 25, wherein enclosing the cable core includes extruding the sheath over the length of the cable core.
27. (Original) The method of claim 26, wherein providing the opening includes stripping the extruded sheath from the cable core over the anti-bonding agent.
28. (Original) The method of claim 20, further comprising providing a pair of rings on the cable core under the sheath to define a location for the opening.
29. (Original) The method of claim 28, wherein providing the opening includes providing the opening at the defined location for the opening.
30. (Original) The method of claim 28, further comprising clamping the sheath on the rings to terminate the sheath on each end of the opening.

31. (Original) The method of claim 28, wherein assembling the sensor module to the cable core includes clamping the sheath on the rings to terminate the sheath on each end of the opening.